

**Federal Funding Opportunity  
National Institute of Standards and Technology  
FY 2005 Neutron Research Financial Assistance Program**

**Overview Information**

1. Federal Agency Name(s): Department of Commerce, National Institute of Standards and Technology, Materials Science and Engineering Lab, Center for Neutron Research (NCNR)
2. Funding Opportunity Title: NIST, Center for Neutron Research Financial Assistance Program
3. Announcement Type: Initial Announcement
4. Funding Opportunity Number: 2005-NCNR-01
5. Catalog of Federal Domestic Assistance (CFDA) Number(s): 11.609
6. Dates: Complete Applications must be received by 5:00pm, EST, April 1, 2005

**Executive summary:** The purpose of this notice is to inform potential applicants that the National Institute of Standards and Technology Center for Neutron Research (NCNR) is establishing a financial assistance program offering financial assistance in the field of Neutron Scattering Research and Spectroscopy specifically aimed at developing new instrumentation for Neutron Research, conducting collaborative research with NIST scientists, and assisting visiting researchers at the NCNR.

**Full Text of Announcement**

**a. Funding Opportunity Description:** The primary program objectives of the financial assistance program in Neutron Research are to develop new areas of neutron instrumentation with emphasis on cold neutrons; to explore and develop new areas of neutron scattering science, with emphasis on macromolecular science, condensed matter physics, and chemistry; to assist and train facility users in their research; and to conduct other outreach and educational activities that advance the use of neutrons by U.S. university and industrial scientists. This will entail stationing scientific staff at the NCNR who, in collaboration with NIST and visiting scientists, advance these objectives.

Applicants and team members must possess the education, experience, and training, to pursue and advance the field of Neutron Research efficiently. In addition, the applicant and team members must possess a demonstrated record of excellence in the development of neutron instrumentation and in research involving neutron scattering methods.

Examples of jointly-pursued activities under previous cooperative agreements include the integration of expert university research and technical staff to assist neutron users at the NCNR in conducting their scientific research on various cold neutron instruments, the design and

development of a state-of-the-art double-focussing neutron monochromator for use on MACS (the Multi-Analyzer Crystal Spectrometer), studies of advanced applications of neutron residual stress methods, the design and development of a neutron phase space transformation chopper for use on the HFBS (High-Flux Backscattering Spectrometer), and computer modeling studies of neutron scattering measurements from biomolecular systems.

Additional information on the NCNR can be found at: [www.ncnr.nist.gov](http://www.ncnr.nist.gov).

Authority: 15 USC 272 (b)(7) and (c)(8,10,16,17,19)

#### **b. Award Information:**

The funding instrument used in this program will be a cooperative agreement or agreements. The nature of NIST's "substantial involvement" will generally be collaboration with the recipient(s) by working jointly with recipient scientists in carrying out the scope of work, or specifying direction or redirection of the scope of work due to inter-relationships with other programs requiring such cooperation.

Proposals will be considered for cooperative agreements with durations of up to five years, subject to the availability of funds, satisfactory progress, and the continuing relevance to the objectives of the NIST Center for Neutron Research. The anticipated level of funding is up to \$3,500,000 per year and one or more awards may be approved. Between one and five awards are likely.

NIST will give preference to full-scope proposals. However applicants may choose to submit proposals covering full or partial amounts of the funding available. Partial funding proposals may be limited to specific program objectives. NIST will determine whether to fund one award for the full amount; to divide available funds into multiple awards of any size, and negotiate scopes of work and budgets as appropriate; or not to select any proposal for funding, upon completing the selection process described below.

Awards are anticipated to contain a start date of September 1, 2005.

#### **c. Eligibility Information**

The NCNR Financial Assistance Program is open to U.S. institutions of higher education.

Cost Sharing or Matching: There is no cost sharing or matching requirements for the program.

#### **d. Application and Submission Information**

Complete application packages may be obtained by contacting Kim Stavish, National Institute of Standards and Technology, NIST Center for Neutron Research, STOP 8560, Gaithersburg, Maryland 20899-8560, phone (301) 975-2672, or by downloading them through [Grants.gov](http://Grants.gov).

## Submissions:

Paper Applications: Each applicant must submit one signed original and two paper copies of the complete application as described below to Kim Stavish, National Institute of Standards and Technology, Center for Neutron Research, STOP 8560, Gaithersburg, Maryland 20899-8560, phone (301) 975-2672. Facsimile, electronic mail, and other forms of electronic application submissions, other than electronic applications submitted through Grants.gov, will not be accepted.

For electronic submission - Applicants should follow the Application Instructions provided at Grants.gov when submitting a response to this funding opportunity. Applicants are encouraged to start early and not wait to the approaching due date before logging on and reviewing the instructions for submitting an application through Grants.gov.

### **2. Content and Form of Application Submission:**

Complete applications/proposals must include the following forms and documents:

- SF-424, Application for Federal Assistance
- SF-424A, Budget Information Non-Constructions
- SF-424B, Assurances Non-Construction
- CD-511, Certification Regarding Lobbying
- CD-346, Applicant for Funding Assistance (IF APPLICABLE)
- SF-LLL, Disclosure of Lobbying Activities (IF APPLICABLE)
- Technical Proposal responsive to program description(s)
- Budget Narrative

### **3. Submission Dates and Times:**

All applications, paper and electronic, must be **received** no later than 5:00 p.m. Eastern Standard Time on April 1, 2005. Late applications will not be reviewed nor considered.

**4. Intergovernmental Review:** Executive Order 12372: Applications under this program are not subject to Executive Order 12372, "Intergovernmental Review of Federal Programs."

**5. Funding Restrictions:** Not applicable.

**6. Other Submission Requirements:** None

### **e. Application Review Information**

#### **1. Criteria:**

For the NCNR Financial Assistance Program, the technical reviewers will use the following criteria to evaluate the proposals:

1. Qualifications and experience of the Principle Investigator in neutron scattering research, as demonstrated by extensive publications and invited lectures in condensed matter physics, chemistry, material science, macromolecular science or related fields. (10%)
2. Qualifications and experience of the proposed university staff in neutron scattering research or in related scientific or engineering areas that are key to the activities contained in the proposal, as demonstrated by resumes of staff proposed for this program. (25%)
3. Quality of the proposed research and development plan and its potential impact on neutron scattering science, particularly in the areas of macromolecular science, condensed matter physics, and chemistry. (20%)
4. Quality of the plan in terms of providing research assistance to U.S. neutron researchers using the NCNR facilities, including related training, education, and outreach. (30%)
5. Quality of the plan to integrate university staff effectively into the activities of the NCNR facility, including establishing robust communications between the university and the NCNR. (10%)
6. Cost effectiveness of the plan. (5%)

## **2. Review and Selection Process:**

All applications received in response to this announcement will be reviewed to determine whether or not they are complete and responsive to the scope of the stated program objectives. Incomplete or non-responsive applications will not be reviewed for technical merit. The Program will retain one copy of each non-responsive application for three years for record keeping purposes. The remaining copies will be destroyed.

Responsive proposals will be reviewed by an independent, objective panel composed of at least four individuals who are knowledgeable about neutron scattering research, neutron spectroscopy, and neutron scattering instrumentation. This panel will conduct a technical review of proposals based on the evaluation criteria listed above. If non-Federal reviewers are used, any advice provided will be on an individual basis, not as a consensus.

The NCNR Director, serving as the Selection Official, will make the award selection. In making the award selection, the NCNR Director will take into consideration the panels' technical evaluation. The NCNR Director, as the selecting official, may choose a proposal out of rank order based upon one or more of the following factors: (1) Availability of funds, (2) Redundancy, (3) Balance/distribution of funds by research areas described above in the Program description of this Notice, (4) Program objectives described above in the Program Description section of this Notice, (5) Logistical concerns, and (6) Preference for full-scope proposals. If an award is made to an applicant that deviates from the scores of the reviewers, the NCNR Director

shall justify the selection in writing based on selection factors described above. The NCNR Director may select all, none, or some of the applications for funding.

The final approval of selected applications and award of financial assistance will be made by the NIST Grants Officer based on compliance with application requirements as published in this notice, compliance with applicable legal and regulatory requirements, compliance with Federal policies that best further the objectives of the Department of Commerce, and whether the recommended applicants appear to be responsible. Applicants may be asked to modify objectives, work plans, or budgets and provide supplemental information required by the agency prior to award. The award decision of the Grants Officer is final. Applicants should allow up to 90 days processing time.

Unsuccessful applicants will be notified in writing. The Program will retain one copy of each unsuccessful application for three years for record keeping purposes. The remaining copies will be destroyed.

**3. Anticipated Announcement and Award Dates:** Awards are anticipated to be made by August 30, 2005.

#### **f. Award Administration Information**

**1. Award Notices:** Successful finalists will receive a cooperative agreement award document from the Grant Officer. The document will be mailed via surface mail in triplicate. The recipient should have an authorized official at the organization sign and return two copies to the address listed in the award document. The award document will also include the standard terms and conditions, general terms and conditions (if any), and special award conditions (if any) that are applicable.

**2. Administrative and National Policy Requirements:** The Department of Commerce Pre-Award Notification Requirements for Grants and Cooperative Agreements: The Department of Commerce Pre-Award Notification Requirements for Grants and Cooperative Agreements contained in the Federal Register notice of December 30, 2004 (69 FR 78389) is applicable to this announcement. On the form SF-424, the applicant's 9-digit Dun and Bradstreet Data Universal Numbering System (DUNS) number must be entered in the Applicant Identifier block.

**Collaborations with NIST Employees:** All applications should include a description of any work proposed to be performed by an entity other than the applicant, and the cost of such work should ordinarily be included in the budget.

If an applicant proposes collaboration with NIST, the statement of work should include a statement of this intention, a description of the collaboration, and prominently identify the NIST employee(s) involved, if known. Any collaboration by a NIST employee must be approved by appropriate NIST management and is at the sole discretion of NIST. Prior to beginning the merit review process, NIST will verify the approval of the proposed collaboration. Any unapproved collaboration will be stricken from the proposal prior to the merit review.

**Use of NIST Intellectual Property:** If the applicant anticipates using any NIST-owned

intellectual property to carry out the work proposed, the applicant should identify such intellectual property. This information will be used to ensure that no NIST employee involved in the development of the intellectual property will participate in the review process for that competition. In addition, if the applicant intends to use NIST-owned intellectual property, the applicant must comply with all statutes and regulations governing the licensing of Federal government patents and inventions, described at 35 U.S.C. sec. 200-212, 37 CFR part 401, 15 CFR 14.36, and in section 20 of the Department of Commerce Pre-Award Notification Requirements for Grants and Cooperative Agreements, 69 FR 78389, published December 30, 2004. Questions about these requirements may be directed to the Counsel for NIST, 301-975-2803.

Any use of NIST-owned intellectual property by a proposer is at the sole discretion of NIST and will be negotiated on a case-by-case basis if a project is deemed meritorious. The applicant should indicate within the statement of work whether it already has a license to use such intellectual property or whether it intends to seek one.

If any inventions made in whole or in part by a NIST employee arise in the course of an award made pursuant to this notice, the United States government may retain its ownership rights in any such invention. Licensing or other disposition of NIST's rights in such inventions will be determined solely by NIST, and include the possibility of NIST putting the intellectual property into the public domain.

#### **Research Projects Involving Human Subjects, Human Tissue, Data or Recordings**

**Involving Human Subjects:** Any proposal that includes research involving human subjects, human tissue, data or recordings involving human subjects must meet the requirements of the Common Rule for the Protection of Human Subjects, codified for the Department of Commerce at 15 CFR part 27. In addition, any proposal that includes research on these topics must be in compliance with any statutory requirements imposed upon the Department of Health and Human Services (DHHS) and other federal agencies regarding these topics, all regulatory policies and guidance adopted by DHHS, FDA, and other Federal agencies on these topics, and all Presidential statements of policy on these topics.

On December 3, 2000, the U.S. Department of Health and Human Services (DHHS) introduced a new Federal-wide Assurance of Protection of Human Subjects (FWA). The FWA covers all of an institution's Federally supported human subjects research, and eliminates the need for other types of Assurance documents. The Office for Human Research Protections (OHRP) has suspended processing of multiple project assurance (MPA) renewals. All existing MPAs will remain in force until further notice. For information about FWAs, please see the OHRP Web site at <http://ohrp.osophs.dhhs.gov/humansubjects/assurance/fwass.htm>

In accordance with the DHHS change, NIST will continue to accept the submission of human subjects protocols that have been approved by Institutional Review Boards (IRBs) possessing a current, valid MPA from DHHS. NIST also will accept the submission of human subjects protocols that have been approved by IRBs possessing a current, valid FWA from DHHS. NIST will not issue a single project assurance (SPA) for any IRB reviewing any human subjects protocol proposed to NIST.

On August 9, 2001, the President announced his decision to allow Federal funds to be used for research on existing human embryonic stem cell lines as long as prior to his announcement (1) the derivation process (which commences with the removal of the inner cell mass from the blastocyst) had already been initiated and (2) the embryo from which the stem cell line was derived no longer had the possibility of development as a human being. NIST will follow guidance issued by the National Institutes of Health at <http://ohrp.osophs.dhhs.gov/humansubjects/guidance/stemcell.pdf> for funding such research.

**Research Projects Involving Vertebrate Animals:** Any proposal that includes research involving vertebrate animals must be in compliance with the National Research Council's "Guide for the Care and Use of Laboratory Animals" which can be obtained from National Academy Press, 2101 Constitution Avenue, NW., Washington, DC 20055. In addition, such proposals must meet the requirements of the Animal Welfare Act (7 U.S.C. 2131 et seq.), 9 CFR parts 1, 2, and 3, and if appropriate, 21 CFR part 58. These regulations do not apply to proposed research using pre-existing images of animals or to research plans that do not include live animals that are being cared for, euthanized, or used by the project participants to accomplish research goals, teaching, or testing. These regulations also do not apply to obtaining animal materials from commercial processors of animal products or to animal cell lines or tissues from tissue banks.

**Executive Order 12866:** This funding notice was determined to be not significant for purposes of Executive Order 12866.

**Executive Order 13132 (Federalism):** It has been determined that this notice does not contain policies with federalism implications as that term is defined in Executive Order 13132.

**Administrative Procedure Act/Regulatory Flexibility Act:** Notice and comment are not required under the Administrative Procedure Act (5 U.S.C. 553) or any other law, for rules relating to public property, loans, grants, benefits or contracts (5 U.S.C. 553 (a)). Because notice and comment are not required under 5 U.S.C. 553, or any other law, for rules relating to public property, loans, grants, benefits or contracts (5 U.S.C. 553(a)), a Regulatory Flexibility Analysis is not required and has not been prepared for this notice, 5 U.S.C. 601 et seq

**3. Reporting:** Successful finalists will be required to submit, on a semi-annual basis for the periods ending March 31 and September 30 of each year, a technical progress report and a SF-269, Financial Status Report. From time to time, and in accordance with the Uniform Administrative Requirements and other terms and conditions governing the award, the recipient may need to submit property and patent reports.

**g. Agency Contact(s):** Technical questions can be directed to Dr. Dan Neumann at , NCNR, 100 Bureau Drive, MS 8562, Gaithersburg, MD 20899-8562, (301) 975-5252, [Dan.Neumann@nist.gov](mailto:Dan.Neumann@nist.gov).

All grants related administration questions concerning this program should be addressed to: Joyce Brigham, NIST Grants and Agreements Management Division, (301) 975-6328; [joyce.brigham@nist.gov](mailto:joyce.brigham@nist.gov). For assistance with using Grants.gov contact [support@grants.gov](mailto:support@grants.gov).